Contents

Ackerman JD → Meléndez EJ
Adams WW III, Demming-Adams B, Lange OL: Carotenoid composition and metabolism in green and blue-green algal lichens in the field 576
Addicott JF → Tyre AJ
Adkisson CS → Johnson WC
Aguilera MO, Lauenroth WK: Neighborhood interactions in a natural population of the perennial bunchgrass *Bouteloua gracilis* 595
Andrews RH → Chilton NB
Arnone III JA, Körner C: Influence of elevated CO_2 on canopy development and red:far-red ratios in two-storied stands of *Ricinus communis* 510

Baldwin IT, Callahan P: Autotoxicity and chemical defense: nicotine accumulation and carbon gain in solanaceous plants 534
Ballenberghe VV → Molvar EM
Ballmoos P von → Nussbaum S
Baltensweiler W: Why the larch bud-moth cycle collapsed in the subalpine larch-cembran pine forests in the year 1990 for the first time since 1850 62
Barry Osmond C → Casper C
Baur B → Bengtsson J
Bazzaz FA → Berntson GM
Bazzaz FA → McConnaughay KDM
Bazzaz FA → Wayne PM
Beckon WN: The effect of insularity on the diversity of land birds in the Fiji islands: implications for refuge design 318
Bengtsson J, Baur B: Do pioneers have *r*-selected traits? Life history patterns among colonizing terrestrial gastropods 17
Berntson GM, McConnaughay KDM, Bazzaz FA: Elevated CO_2 alters deployment of roots in "small" growth containers 558
Berntson GM → McConnaughay KDM
Billheimer DD → Gibbens RP
Blossey B: Herbivory below ground and biological weed control: life history of a root-boring weevil on purple loosestrife 380
Bowers MA, Dooley JL Jr: Predation hazard and seed removal by small mammals: microhabitat versus patch scale effects 247
Bowyer RT → Molvar EM
Boy V → Mesléard F
Brendelberger H, Jürgens S: Suspension feeding in *Bithynia tentaculata* (Prosobranchia, Bithyniidae), as affected by body size, food and temperature 36
Brunold C → Nussbaum S
Bull CM → Chilton NB
Busch DE, Smith SD: Effects of fire on water and salinity relations of riparian woody taxa 186

Callahan P → Baldwin IT
Carrascal LM → Díaz JA
Case TJ, Schwaner TD: Island/mainland body size differences in Australian varanid lizards 102
Casper C, Eickmeier WG, Barry Osmond C: Changes of fluorescence and xanthophyll pigments during dehydration in the resurrection plant *Selaginella lepidophylla* in low and medium light intensities 528
Chastel O, Weimerskirch H, Jouventin P: High annual variability in reproductive success and survival of an Antarctic seabird, the snow petrel *Pagodroma nivea*. A 27-year study 278
Chilton NB, Andrews RH, Bull CM: Effect of delayed mating and prolonged engorgement on the reproductive fitness of female *Amblyomma limbatum* (Acari: Ixodidae) in marginal population areas 67
Cobb NS, Whitham TG: Herbivore deme formation on individual trees: a test case 496

Delorme D → Gaillard JM
Demming-Adams B → Adams III WW
Denslow JS → Newell EA
Díaz JA, Carrascal LM: Variation in the effect of profitability on prey size selection by the lacertid lizard *Psammodromus algirus* 23
Doley D → Turnbull MH
Dommée B → Thompson JD
Donaldson JS: Mast-seeding in the cycad genus *Encephalartos*: a test of the predator satiation hypothesis 262
Dooley JL Jr → Bowers MA
Duarte CM → Enríquez S
Duarte CM → Grillas P
Dukas R, Real LA: Effects of recent experience on foraging decisions by bumble bees 244

Ehleringer JR → Evans RD
Eickmeier WG → Casper C
Englund R: Movement patterns of *Cetonia* beetles (Scarabaeidae) among flowering *Viburnum opulus* (Caprifoliaceae). Option for long-distance pollen dispersal in a temperate shrub 295
Enríquez S, Duarte CM, Sand-Jensen K: Patterns in decomposition rates among photosynthetic organisms: the importance of detritus C:N:P content 457
Evans RD, Ehleringer JR: A break in the nitrogen cycle in aridlands? Evidence from $\delta^{15}N$ of soils 314

Fiedler K, Krug E, Proksch P: Complete elimination of hostplant quinolizidine alkaloids by larvae of a polyphagous lycaenid butterfly, *Callophrys rubi* 441
Firbank LG: Short-term variability of plant populations within a regularly disturbed habitat 351
Fleming TH, Nuñez RA, Silveira Lobo Sternberg L da: Seasonal changes in the diets of migrant and non-migrant nectarivorous bats as revealed by carbon stable isotope analysis 72
Forget P-M: Post-dispersal predation and scatterhoarding of *Dipteryx panamensis* (Papilionaceae) seeds by rodents in Panama 255
Formanowicz DR Jr, Shaffer LR: Reproductive investment in the scorpion *Centruroides vittatus* 368
Fox JF: Size and sex allocation in monoecious woody plants 110
Fuhrer J → Nussbaum S

Gaillard JM, Delorme D, Jullien JM: Effects of cohort, sex, and birth date on body development of roe deer (*Capreolus capreolus*) fawns 57
Gall B → Wikelski M
Garcia-Murillo P → Grillas P
Gebauer G → Widmann K
Geertz-Hansen O → Grillas P
Getz J → Lajtha K
Gfeller H → Nussbaum S
Gibbens RP, Havstad KM, Billheimer DD, Herbel CH: Creosotebush vegetation after 50 years of lagomorph exclusion 210
Granström A, Schimmel J: Heat effects on seeds and rhizomes of a selection of boreal forest plants and potential reaction to fire 307
Grillas P, Garcia-Murillo P, Geertz-Hansen O, Marbá N, Montes C, Duarte CM, Tan Ham L, Grossmann A: Submerged macrophyte seed bank in a Mediterranean temporary marsh: abundance and relationship with established vegetation 1
Grillas P → Mesléard F
Grossmann A → Grillas P
Gutiérrez JR → Meserve PL

Halle S: Wood mice (*Apodemus sylvaticus* L.) as pioneers of recolonization in a reclaimed area 120
Hansson L-A: Factors initiating algal life-form shift from sediment to water 286
Havstad KM → Gibbens RP
Herbel CH → Gibbens RP
Hill AM, Sinars DM, Lodge DM: Invasion of an occupied niche by the crayfish *Orconectes rusticus*: potential importance of growth and mortality 303
Höller C, Hörmann R: Patch marking in the aphid hyperparasitoid, *Dendrocerus carpenteri*: the information contained in patch marks 128
Hörmann R → Höller C
Houston AI, Krakauer DC: Hummingbirds as net rate maximisers 135
Huignard J → Leveque L
Hunter MD, Schultz JC: Induced plant defenses bached? Phytochemical induction protects an herbivore from disease 195

Jaksic FM → Meserve PL
Johnson WC, Thomas L, Adkisson CS: Di-

etary circumvention of acorn tannins by blue jays. Implications for oak demography 159
Jouventin P → Chastel O
Jullien JM → Gaillard JM
Jürgens S → Brendelberger H

Kelly CK, Purvis A: Seed size and establishment conditions in tropical trees. On the use of taxonomic relatedness in determining ecological patterns 356
Killingbeck KT: Inefficient nitrogen resorption in genets of the actinorhizal nitrogen fixing shrub *Comptonia peregrina*: physiological ineptitude or evolutionary tradeoff? 542
King BH, Seidl SE: Sex ratio response of the parasitoid wasp *Muscidifurax raptor* to other females 428
Klinkhamer PGL → Lamont BB
Koide RT → Stanley MR
Körner C → Arnone III JA
Korsmo H → Spidsø TK
Krakauer DC → Houston AI
Krug E → Fiedler K
Kruger EL → Walters MB
Kusch J: Induction of defensive morphological changes in ciliates 571

Lajtha K, Getz J: Photosynthesis and water-use efficiency in pinyon-juniper communities along an elevation gradient in northern New Mexico 95
Lamb RJ → MacKay PA
Lambers H → Werf A van der
Lamont BB, Klinkhamer PGL, Witkowski ETF: Population fragmentation may reduce fertility to zero in *Banksia goodii* – a demonstration of the Allee effect 446
Lange OL → Adams III WW
Lauenroth WK → Aguilera MO
Laundre JW: Effects of small mammal burrows on water infiltration in a cool desert environment 43
Lee TD → Martin ME
Leveque L, Monge J-P, Rojas-Rousse D, Van Alebeek F, Huignard J: Analysis of multiparasitism by *Eupelmus vuilleti* (Craw) (Eupelmidae) and *Dinarmus basalis* (Rond) (Pteromalidae) in the presence of one of their common hosts, *Bruchidius atrolineatus* (Pic) (Coleoptera Bruchidae) 272
Levin PS: Habitat structure, conspecific presence and spatial variation on the recruitment of a temperate reef fish 176
Lodge DM → Hill AM

Mackauer M, Völkl W: Regulation of aphid populations by aphidiid wasps: does parasitoid foraging behaviour or hyperparasitism limit impact? 339
MacKay PA, Lamb RJ, Smith MAH: Variability in life history traits of the aphid, *Acyrthosiphon pisum* (Harris), from sexual and asexual populations 330
Madsen T, Shine R: Costs of reproduction in a population of European adders 488
Marbá N → Grillas P
Martin ME, Lee TD: Self pollination and resource availability affect ovule abortion in *Cassia fasciculata* (Caesalpiniaceae) 503
McConnaughay KDM, Berntson GM, Bazzaz FA: Limitations to CO_2-induced growth enhancement in pot studies 550
McConnaughay KDM → Berntson GM
McDonald EP → Newell EA
McLachlan A, Neems R: Are females selected against in ephemeral habitats? The case of a holometabolous insect (*Chironomus pulcher*) 83
Meléndez EJ, Ackerman JD: The effects of a rust infection on fitness components in a natural population of *Tolumnia variegata* (Orchidaceae) 361
Meserve PL, Gutiérrez JR, Jaksic FM: Effects of vertebrate predation on a caviomorph rodent, the degu (*Octodon degus*), in a semiarid thorn scrub community in Chile 153
Mesléard F, Tan Ham L, Boy V, Wijck C van, Grillas P: Competition between an introduced and an indigenous species: the case of *Paspalum paspalodes* (Michx) Schribner and *Aeluropus littoralis* (Gouan) in the Camargue (southern France) 204
Molvar EM, Bowyer RT, Ballenberghe VV Moose herbivory, browse quality, and nutrient cycling in an Alaskan treeline community 472
Monge J-P → Leveque L
Montes C → Grillas P
Mullen RB, Schmidt SK: Mycorrhizal infection, phosphorus uptake, and phenology in *Ranunculus adoneus*: implications for the functioning of mycorrhizae in alpine systems 229
Murali KS, Sukumar R: Leaf flushing phenology and herbivory in a tropical dry deciduous forest, southern India 114

Neems R → McLachlan A
Newell EA, McDonald EP, Strain BR, Denslow JS: Photosynthetic responses of *Miconia* species to canopy openings in a lowland tropical rainforest 49
Nuenen M van → Werf A van der
Nuñez RA → Fleming TH
Nussbaum S, Ballmoos P von, Gfeller H, Schlunegger UP, Fuhrer J, Rhodes D, Brunold C: Incorporation of atmospheric $^{15}NO_2$-nitrogen into free amino acids by Norway spruce *Picea abies* (L.) Karst. 408

Parkinson D → Wardle DA
Pearcy RW → Tinoco-Ojanguren C
Plesner Jensen S: Temporal changes in food preferences of wood mice (*Apodemus sylvaticus* L.) 76
Proksch P → Fiedler K
Purvis A → Kelly CK

Real LA → Dukas R
Rehder H → Widmann K
Reich PB → Walters MB
Retuerto R, Woodward FI: The influences of increased CO_2 and water supply on growth, biomass allocation and water use efficiency of *Sinapis alba* L. grown under different wind speeds 415
Rhodes D → Nussbaum S
Ritchie ME, Tilman D: Predictions of species interactions from consumer-resource theory: experimental tests with grasshoppers and plants 516
Roberts WM → Temeles EJ
Rojas-Rousse D → Leveque L
Rosemond AD: Interactions among irradiance, nutrients, and herbivores constrain a stream algal community 585

Samu F: Wolf spider feeding strategies: optimality of prey consumption in *Pardosa hortensis* 139
Sand-Jensen K → Enríquez S
Schimmel J → Granström A
Schlunegger UP → Nussbaum S
Schmidt SK → Mullen RB
Schultz JC → Hunter MD
Schwaner TD → Case TJ
Seidl SE → King BH
Shaffer LR → Formanowicz DR Jr
Shine R → Madsen T
Shumway DL → Stanley MR
Silveira Lobo Sternberg L da → Fleming TH
Sinars DM → Hill AM
Smith MAH → MacKay PA
Smith SD → Busch DE
Spidsø TK, Korsmo H: Effect of acid rain on pine needles as food for capercaillie in winter 565
Stanley MR, Koide RT, Shumway DL: Mycorrhizal symbiosis increases growth, reproduction and recruitment of *Abutilon theophrasti* Medic. in the field 30
Strain BR → Newell EA
Sukumar R → Murali KS

Tan Ham L → Grillas P
Tan Ham L → Mesléard F
Temeles EJ, Roberts WM: Effect of sexual dimorphism in bill length on foraging behavior: an experimental analysis of hummingbirds 87
Thomas L → Johnson WC
Thompson JD, Dommée B: Sequential variation in the components of reproductive success in the distylous *Jasminum fruticans* (Oleaceae) 480
Tilman D → Ritchie ME
Tinoco-Ojanguren C, Pearcy RW: Stomatal dynamics and its importance to carbon gain in two rainforest *Piper* species. I. VPD effects on the transient stomatal response to lightflecks 388
Tinoco-Ojanguren C, Pearcy RW: Stomatal dynamics and its importance to carbon gain in two rainforest *Piper* species. II. Stomatal versus biochemical limitations during photosynthetic induction 395
Trillmich F → Wikelski M
Turnbull MH, Doley D, Yates DJ: The dynamics of photosynthetic acclimation to changes in light quantity and quality in three Australian rainforest tree species 218

Tyre AJ, Addicott JF: Facultative non-mutualistic behaviour by an "Obligate" mutualist: "Cheating" by Yucca moths 173

Van Alebeek F → Leveque L
Visser AJ → Werf A van der
Völkl W → Mackauer M

Wada N: Dwarf bamboos affect the regeneration of zoochorous trees by providing habitats to acorn-feeding rodents 403
Waller JE → Wardle DA
Walters MB, Kruger EL, Reich PB: Growth, biomass distribution and CO_2 exchange of northern hardwood seedlings in high and low light: relationships with successional status and shade tolerance 7
Wardle DA, Parkinson D, Waller JE: Interspecific competitive interactions between pairs of fungal species in natural substrates 165
Wayne PM, Bazzaz FA: Morning vs afternoon sun patches in experimental forest gaps: consequences of temporal incongruency of resources to birch regeneration 235
Weimerskirch H → Chastel O
Weisner SEB: Long-term competitive displacement of *Typha latifolia* by *Typha angustifolia* in a eutrophic lake 451
Werf A van der, Nuenen M van, Visser AJ, Lambers H: Contribution of physiological and morphological plant traits to a species' competitive ability at high and low nitrogen supply. A hypothesis for inherently fast- and slow-growing monocotyledonous species 434
Whitham TG → Cobb NS
Widmann K, Gebauer G, Rehder H, Ziegler H: Fluctuations in nitrate reductase activity, and nitrate and organic nitrogen concentrations of succulent plants under different nitrogen and water regimes 146
Wijck C van → Mesléard F
Wikelski M, Gall B, Trillmich F: Ontogenetic changes in food intake and digestion rate of the herbivorous marine iguana (*Amblyrhynchus cristatus*, Bell) 373
Witkowski ETF → Lamont BB
Woodward FI → Retuerto R

Yates DJ → Turnbull MH

Ziegler H → Widmann K

Indexed in *Current Contents*

Index of key words

Abutilon theophrasti 30
Actinorhizal plants 542
Alces alces 472
Algae 286
Allee effect 446
Allocation 415
Alnus 110
Amblyomma limbatum 67
Amino acids 408
Anemophily 110
Annuals 1
Ant-aphid mutualism 339
Antliarhinus 262
Aphid 339
Aphididae 330
Apodemus sylvaticus 76
Assimilation rate 218
Asymmetrical competition 204

Bats 72
Beetle pollination 295
Betula 110, 235
Bimodality 76
Biological weed control 380
Biomass distribution 7
Biomass partitioning 434
Birth wight 57
Bithynia tentaculata 36
Black-tailed jackrabbit 210
Blue-green algae 576
Body size 83
Boreal 307
Boreal forest 565
Bouteloua gracilis 595
Breeding success 278
Bumble bees 244
Burrows 43

Caching 159
Canopy gaps 49
Capercaillie 565
Capreolus capreolus 57
Carbon isotopes 186
Carotenoids 576
Cassia fasciculata 503
Caterpillars 441
Centruroides vittatus 368
Cetonia 295
Cheating 173
Chile 153
Chironomids 83
Climate change 62
Cohort effect 57
Colonizing ability 17
Comparative ecology 356
Competition 165
Competitive abilities 451
Cool desert 43
Costs of reproduction 488
CO_2 415, 558
CO_2 enrichment 510
Crassulacean acid metabolism 146
Crayfish 303
Crowding 83
Cryptobiotic crusts 314
C-S-R strategy 351
Currency 135
Cycad 262
$\delta^{13}C$ 95

Dark respiration 218
Dasyprocta punctata 255
Datura stramonium 534
Decision rules 244
Decomposition 457
Defence induction 571
Defensive morphology 571
Delayed mating 67
Deme formation 496
Demographic strategy 278
Demography 176
Dendrocerus carpenteri 128
Desert 43
Deserts 314
Development 229
Diet 303
Diet choice 76
Digestion 373
Dipteryx panamensis 255
Disease 361
Dispersal 159
Distyly 480
Diversity 318
Dwarf bamboo 403

Ectoparasitoids 272
Ectothermy 23
Egg load 128
Elevated CO_2 550
Emergent macrophytes 451
Encephalartos 262
Epiphyte 361
Evolutionary tradeoffs 542

Fagaceae 159
Feeding habits 120
Feeding patterns 76
Filtration rate 36
Fine-scale adaptation 496
Fitness 30, 361
Flight distance 244
Flooding 204
Flowering 110
Fluorescence 528
Food intake 373
Foraging 159, 244, 247
Foraging behavior 87
Foraging behaviour 139, 339
Foraging currencies 23
Forest fire 307
Fragmentation 318
Functional response 36
Fungi 165

Gastropoda 36
Gender allocation 110
Genetic variation 330
Gigantism 102
Grazing 585
Green algae 576
Ground squirrels 43
Growth 57, 303
Growth analysis 415
Growth enhancement 550
Gut limitation 139

Habitat patches 247
Handling time 139
Heat effects 307
Herbivory 373, 441
Highly variable environmental conditions 278
Host plant resistance 496
Host recognition 272
Host-parasitoid co-evolution 339
Hostplant alkaloids 441
Hummingbirds 87, 135